

Figure 1

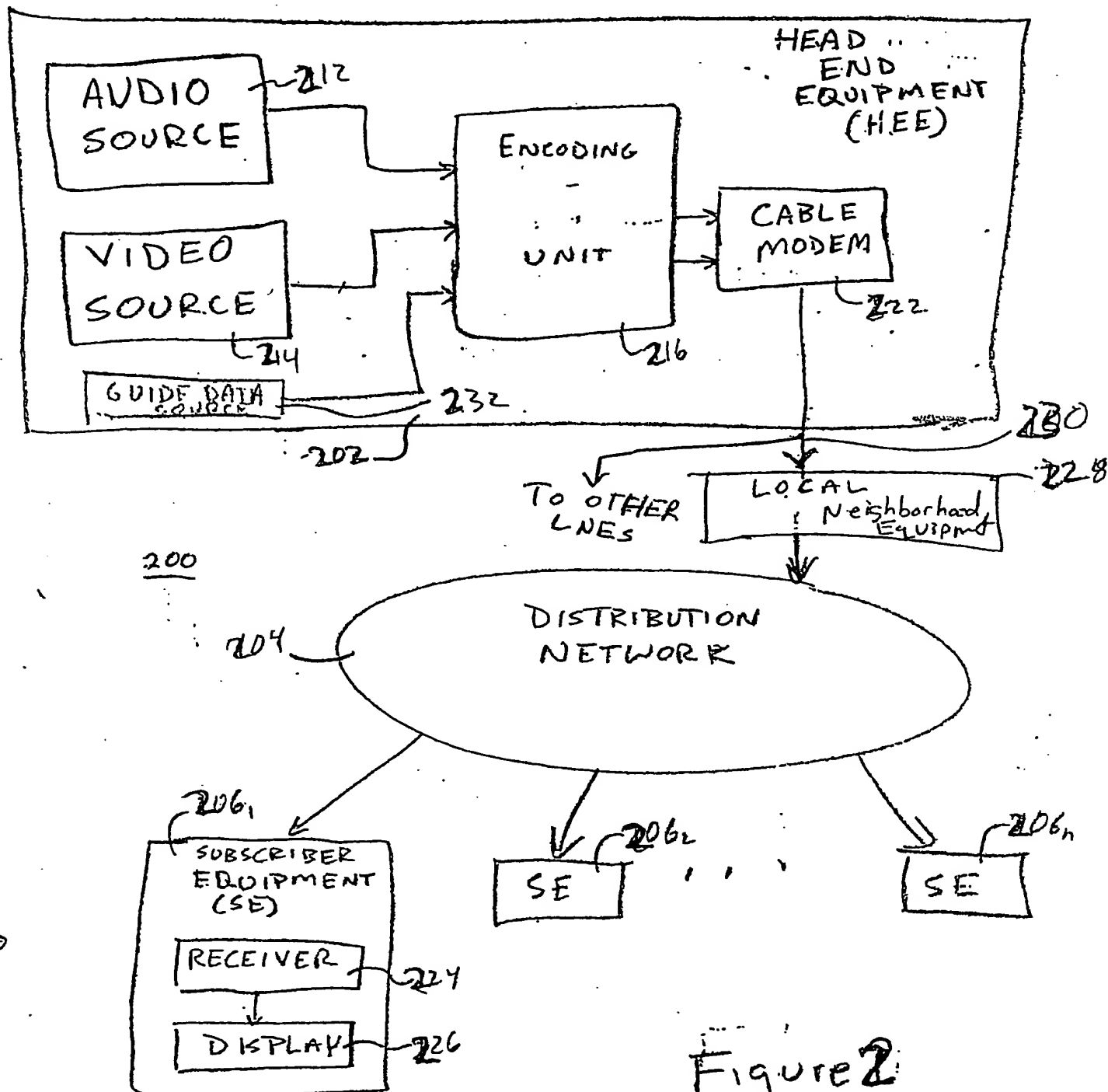


Figure 2

004458706-120900

100 ↗

Slice 1 (g/s1)	Slice 1 (v/s1)
Slice 2 (g/s2)	Slice 2 (v/s2)
⋮	⋮
Slice N (g/sN)	Slice N (v/sN)

↑
102

↖
101

FIGURE 3

216

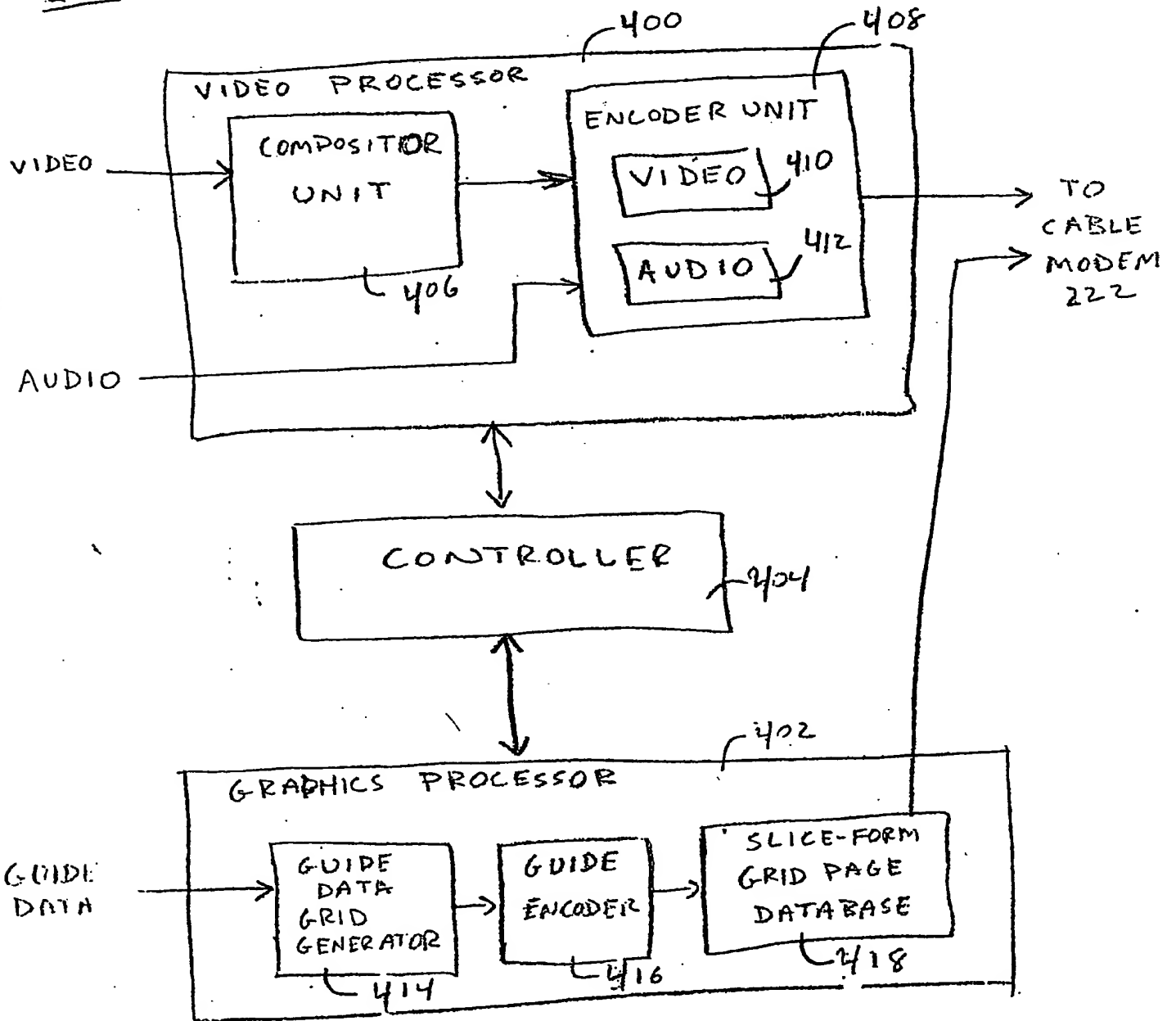


FIGURE 4

228

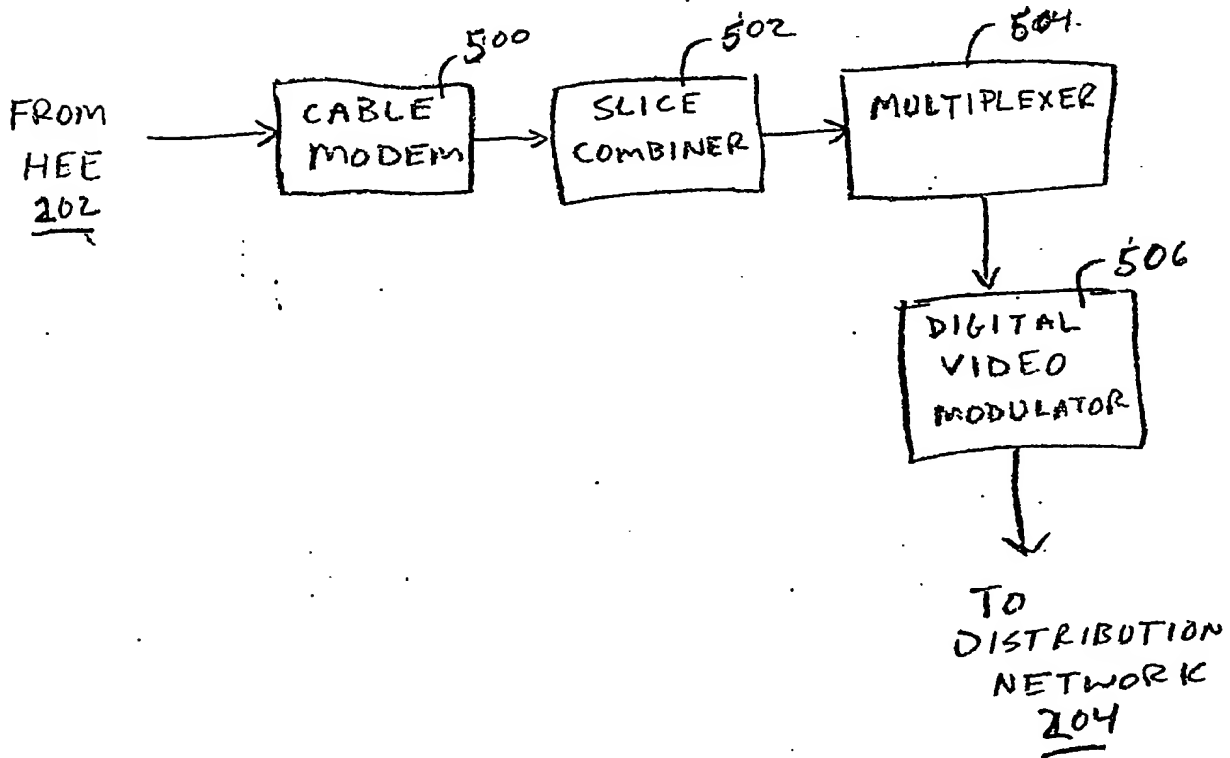


FIGURE 5

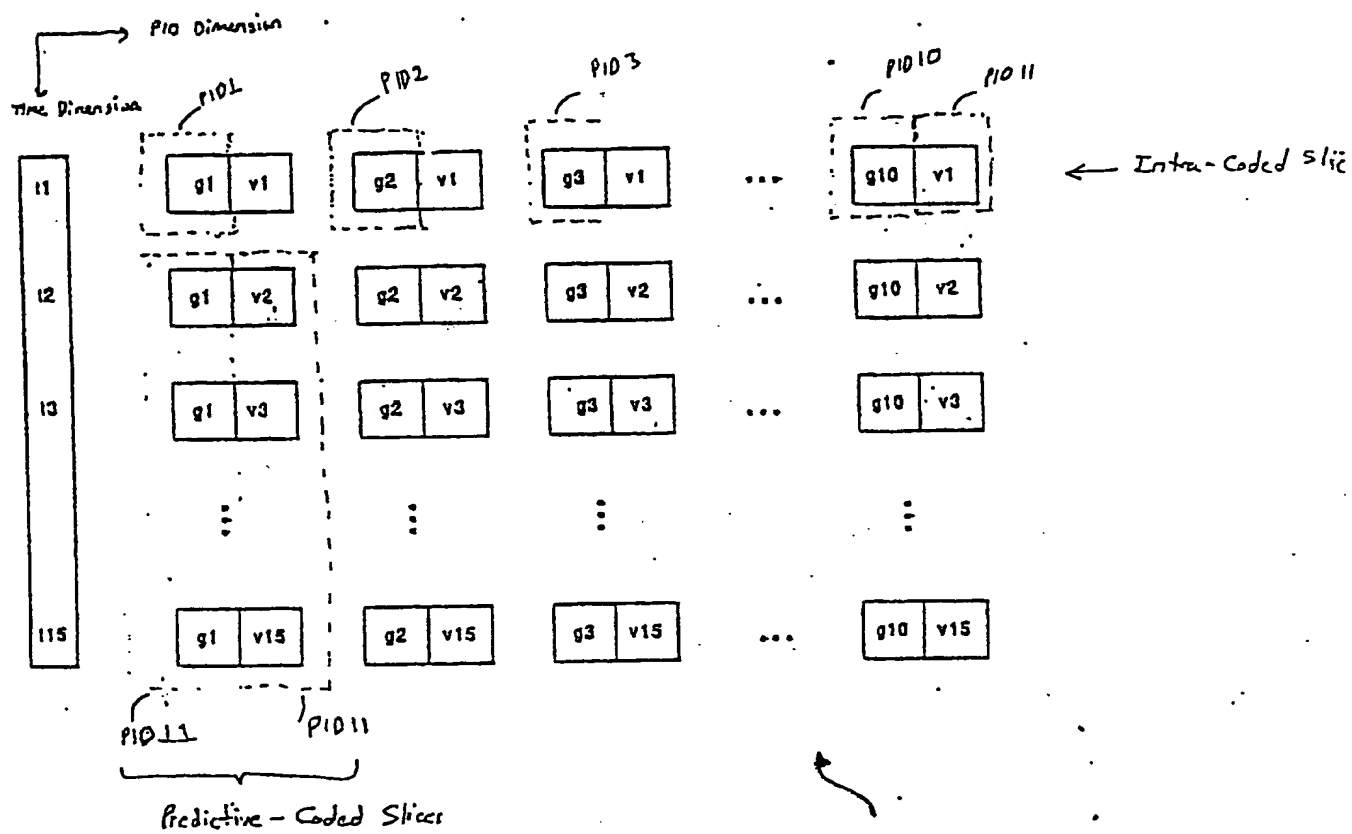


Figure 6

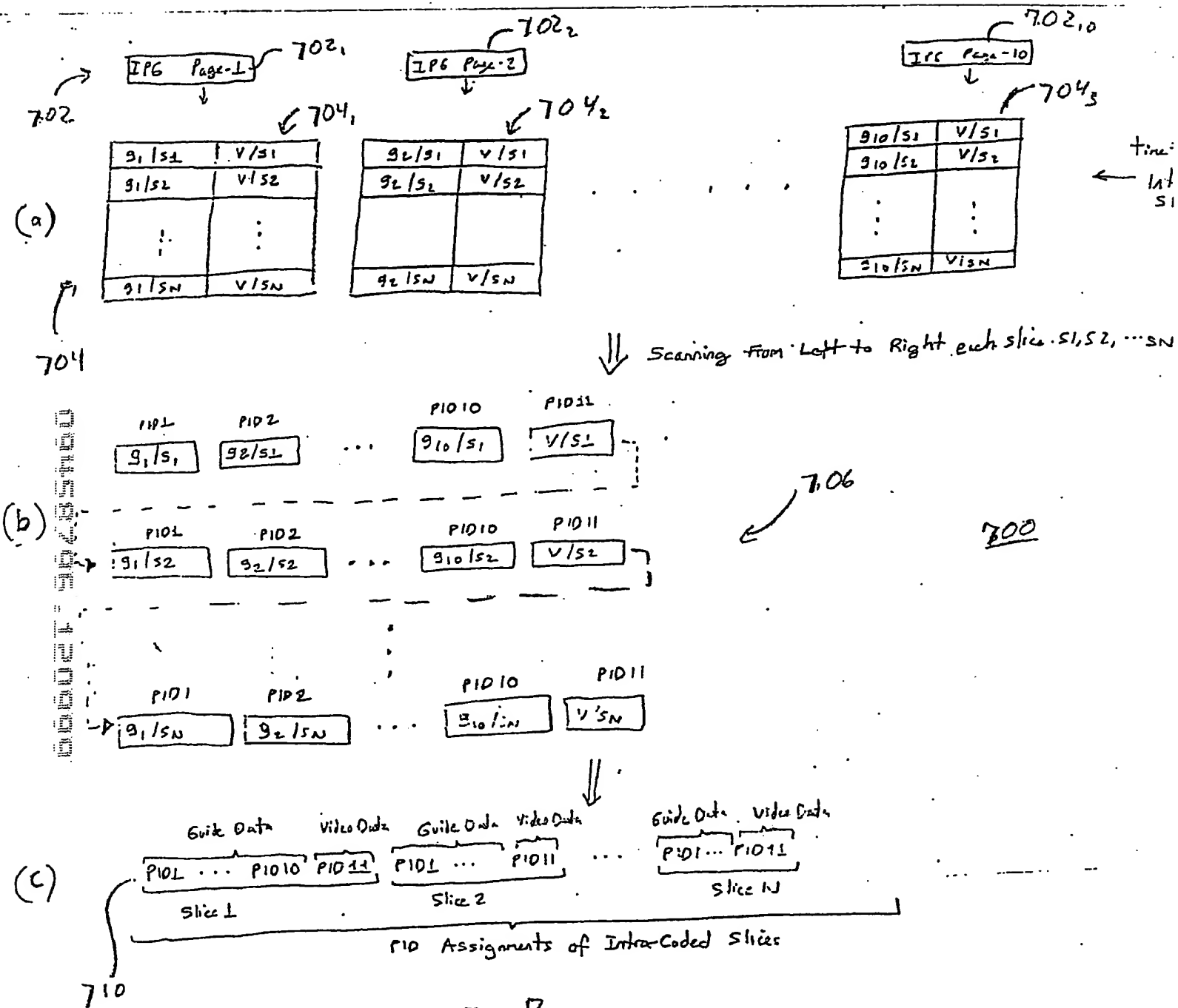
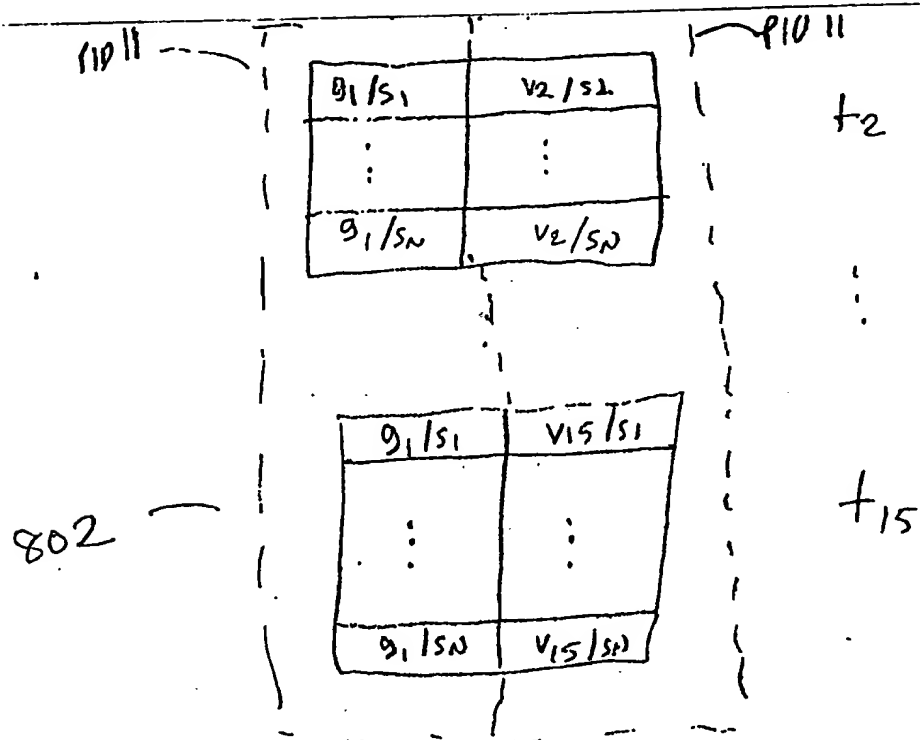
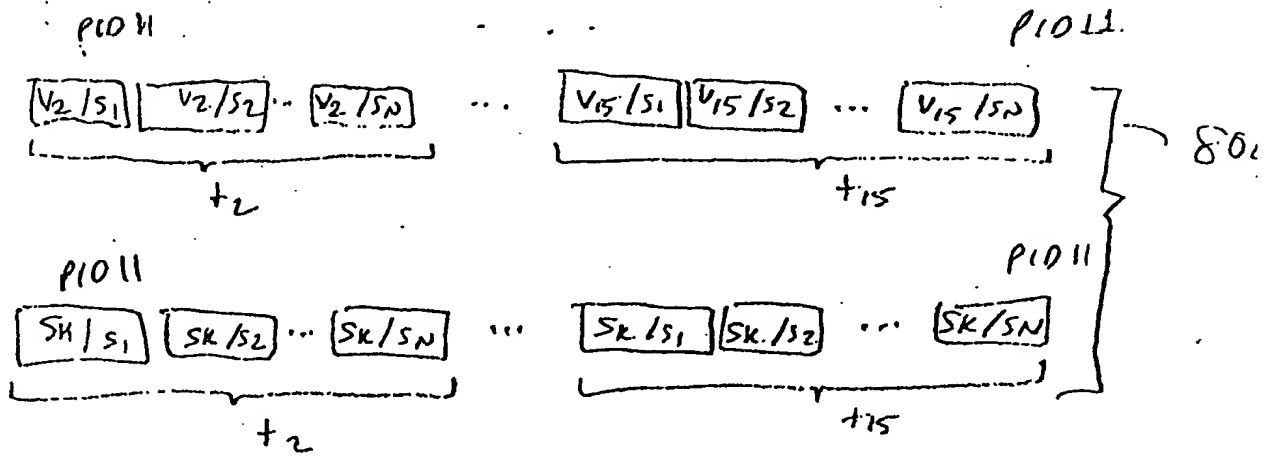


Figure 7



Scanning Video Slices
Left to right
Top to bottom



Skipped
Guide
Slices

800

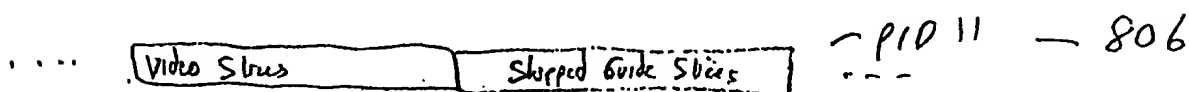


Figure 8

[illegible]

Figure 9

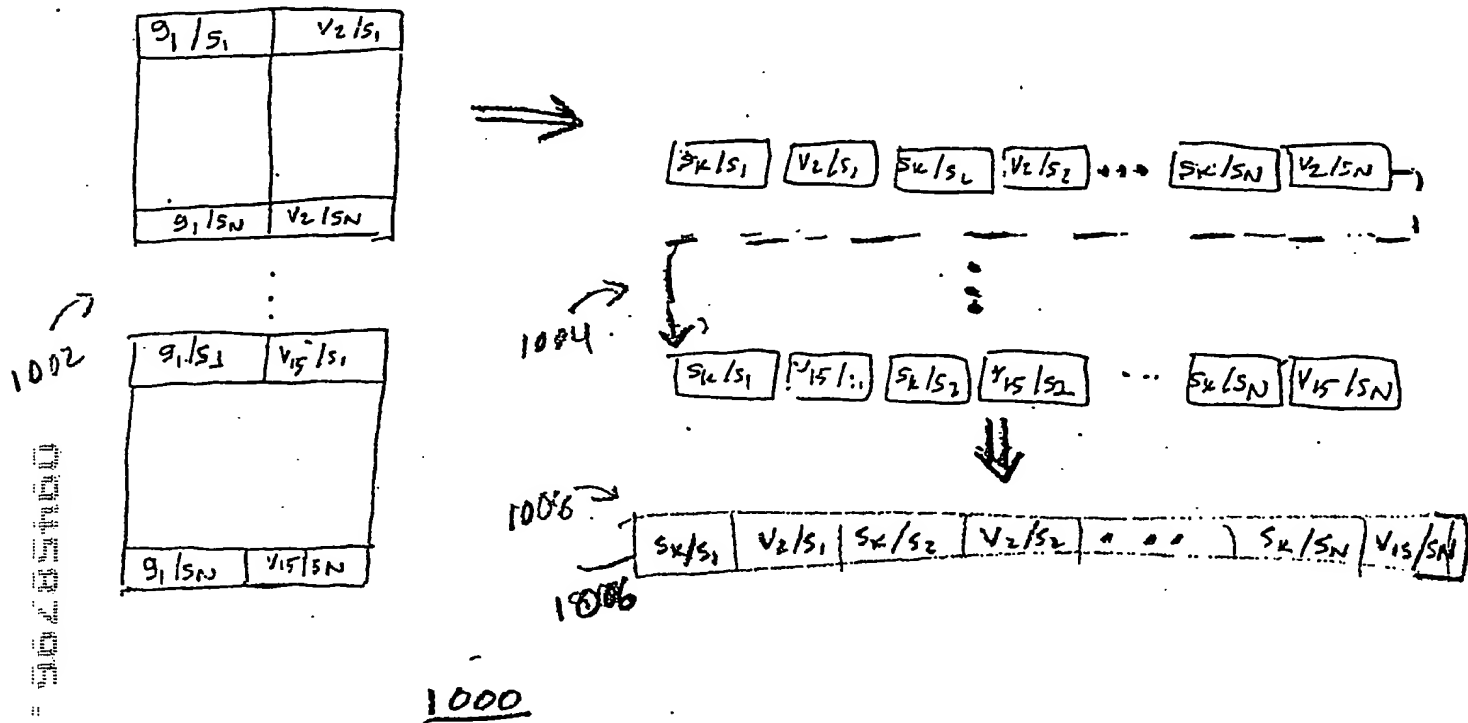


Figure 10

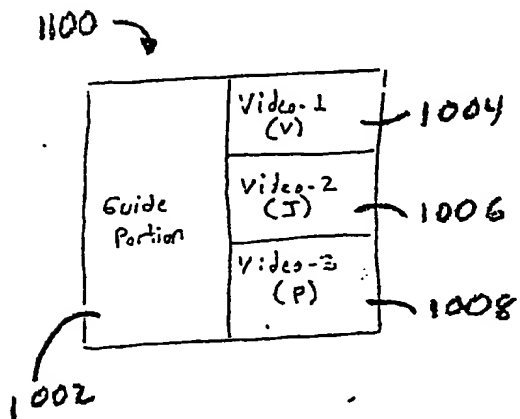


FIGURE 11A

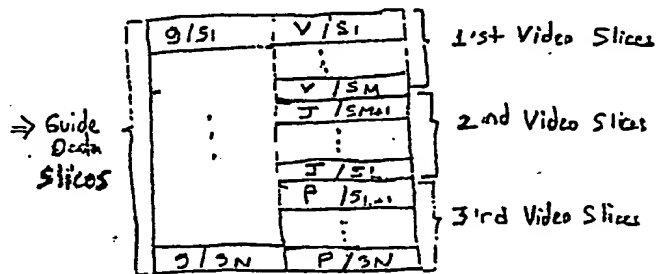


Figure 11B

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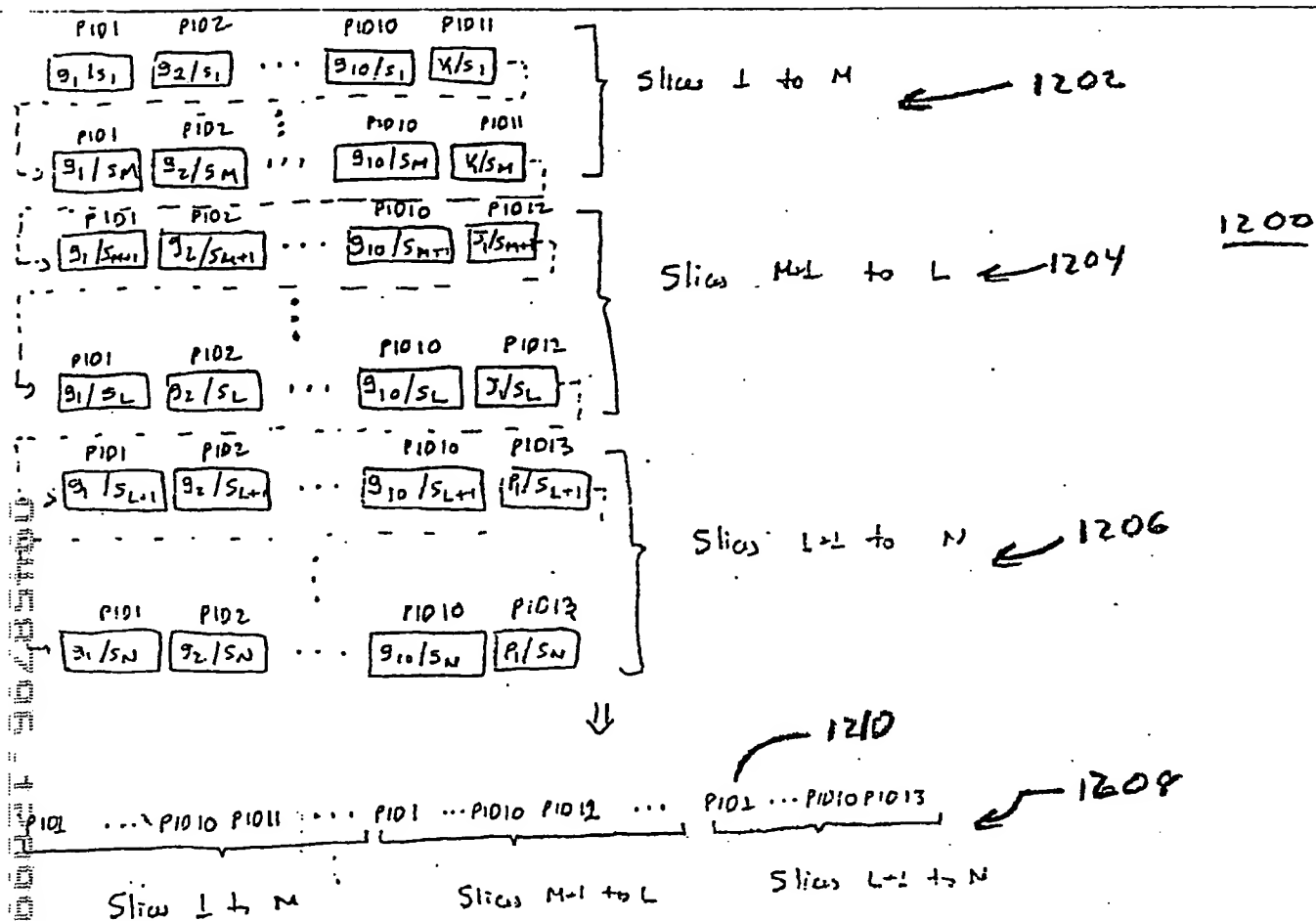
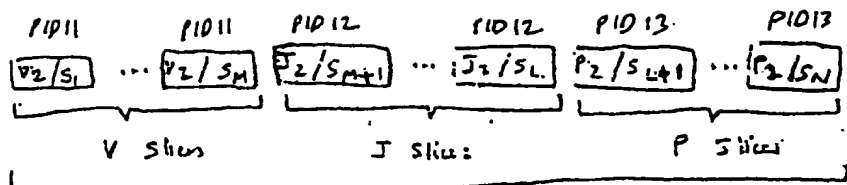
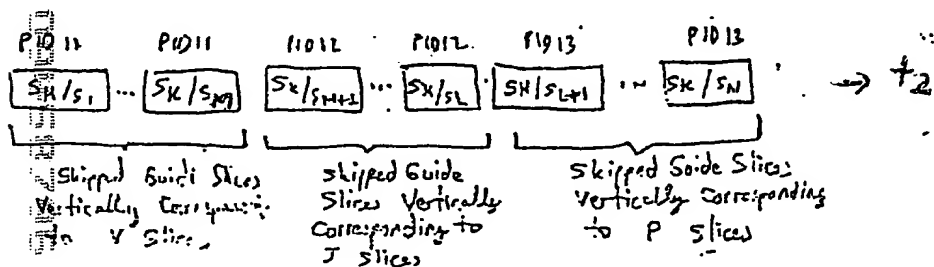
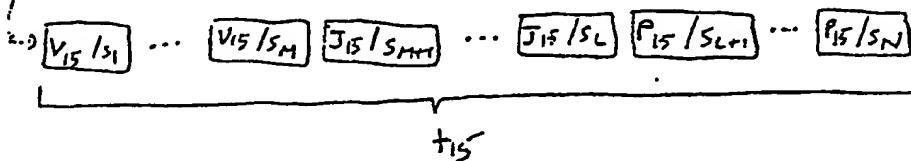


Figure 12



Projected
Video

1300



Skipped
Guide
Slices

1304

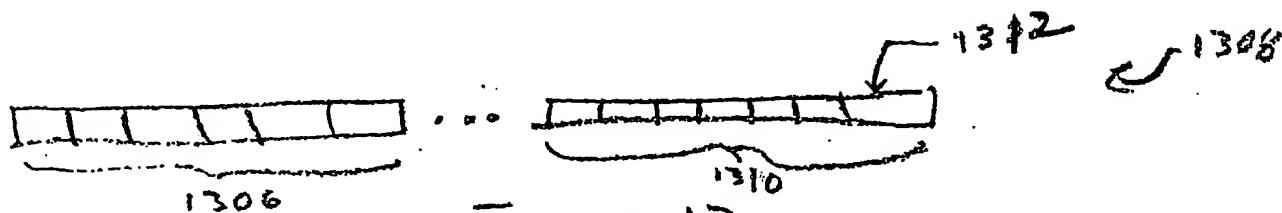
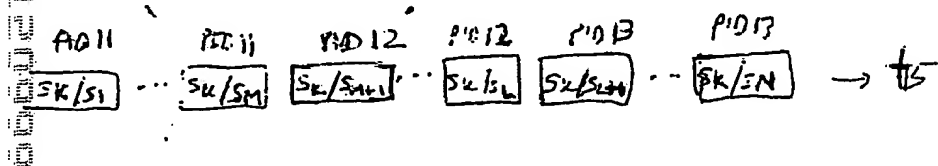


Figure 13

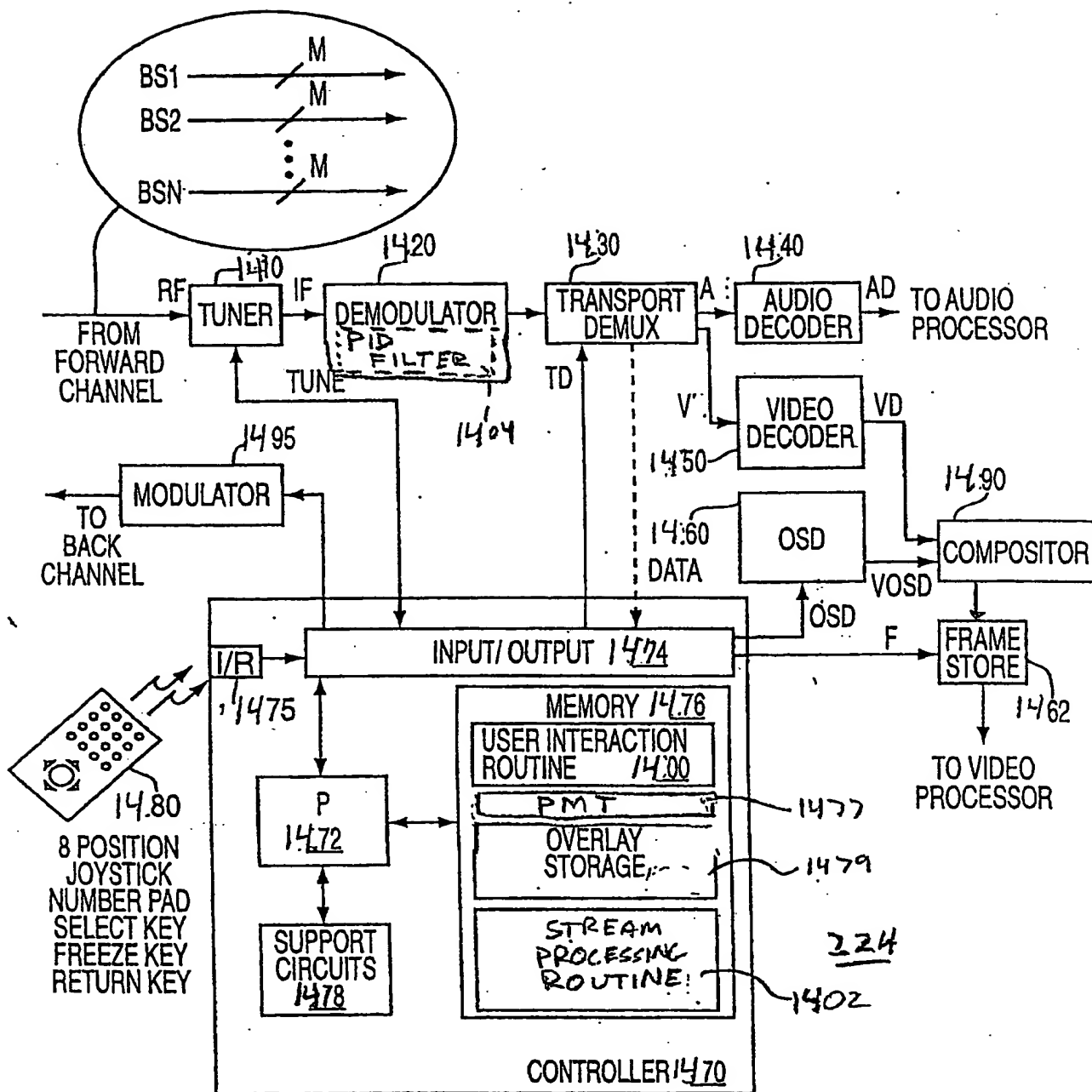


Figure 14

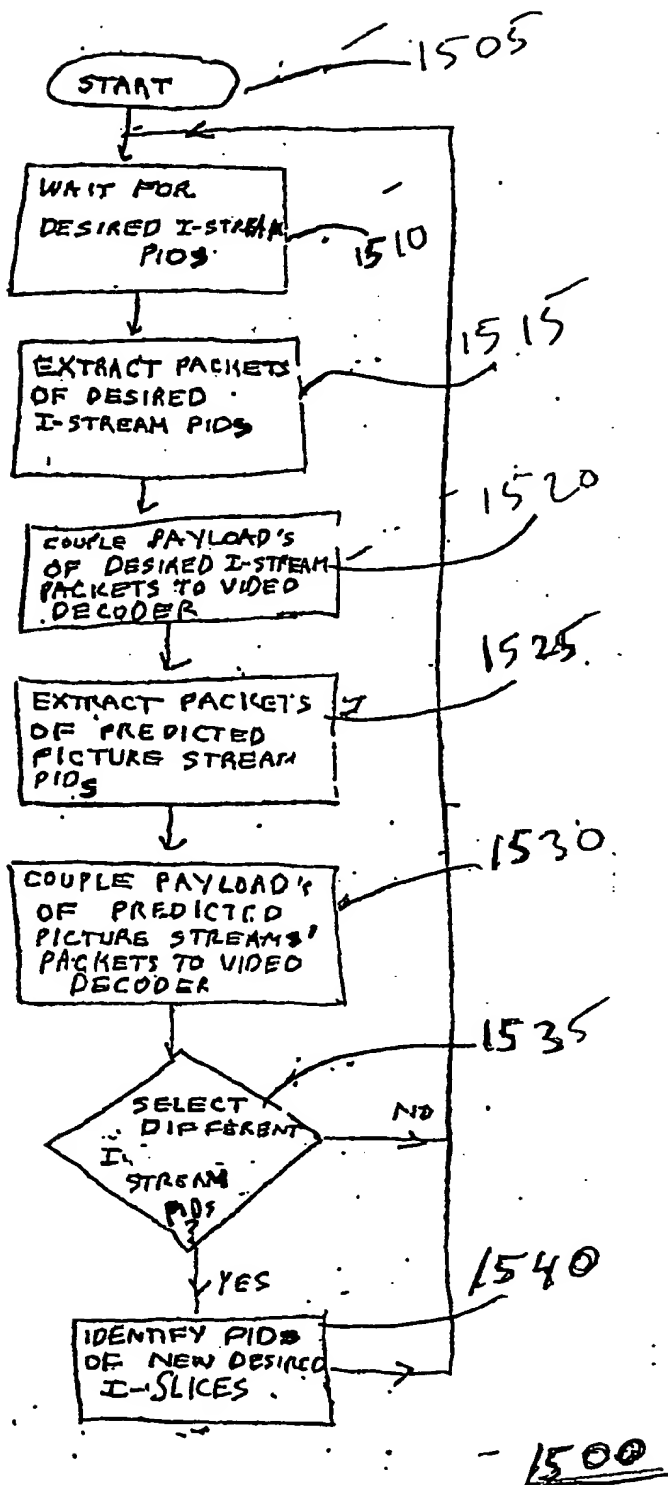


Figure 15

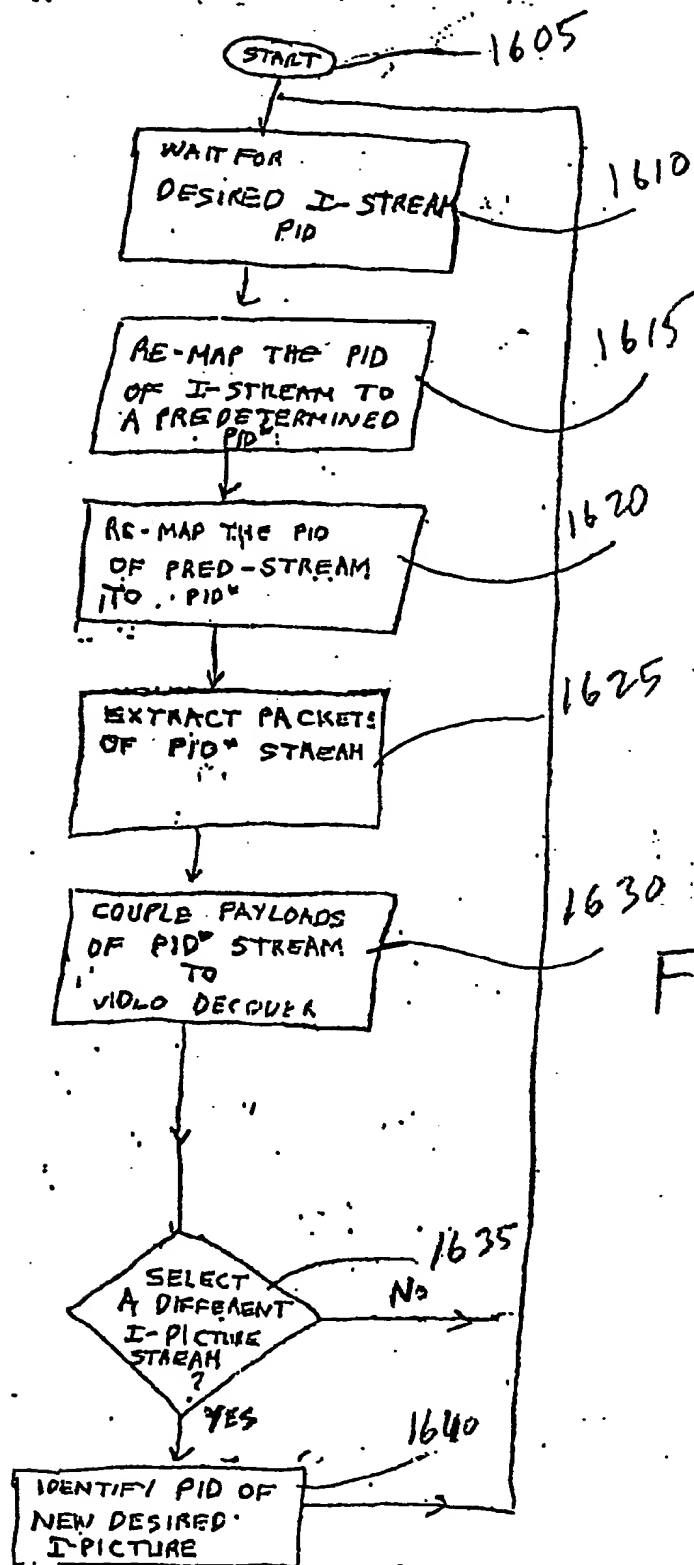


Figure 16

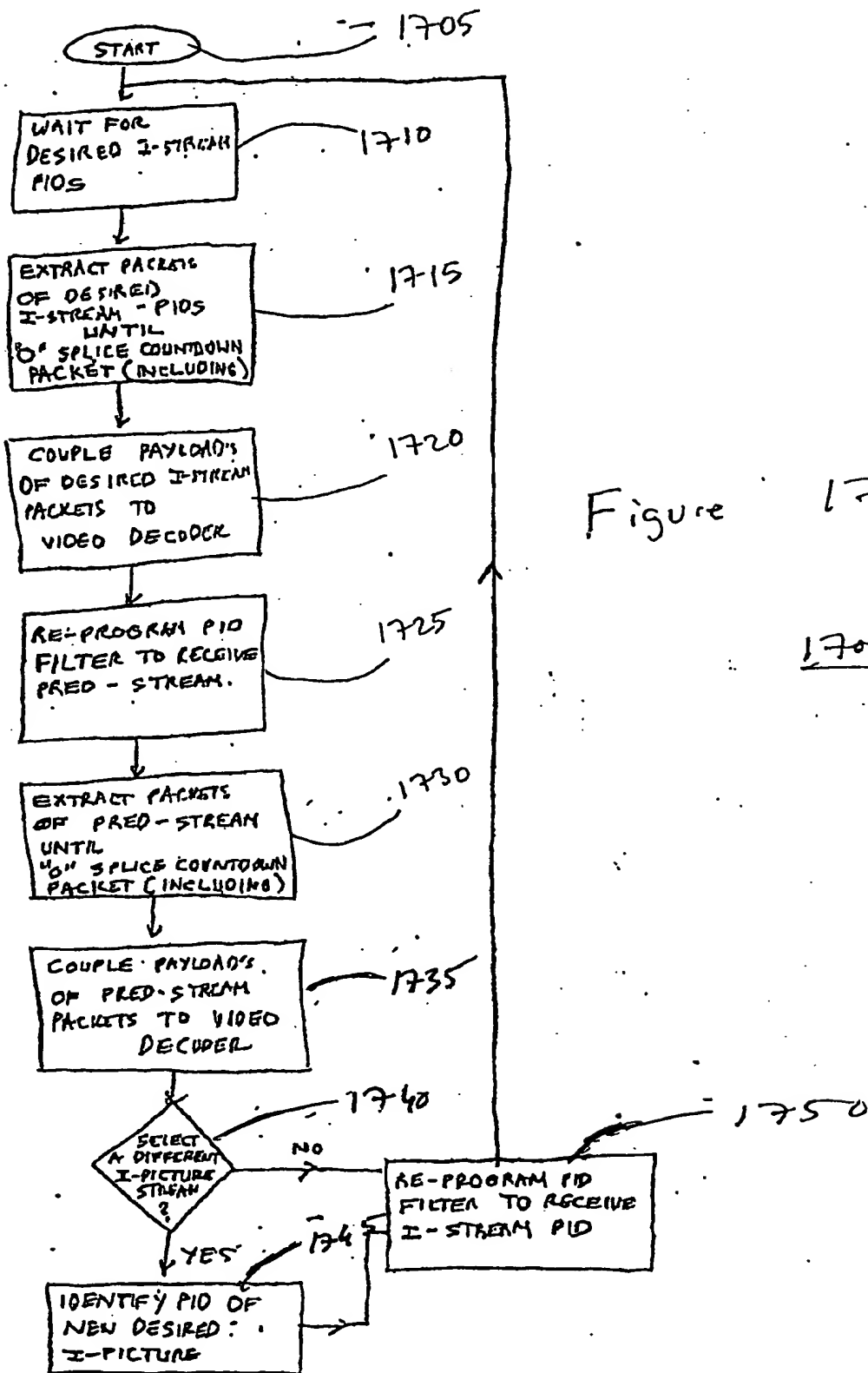


Figure 17

1700

1800

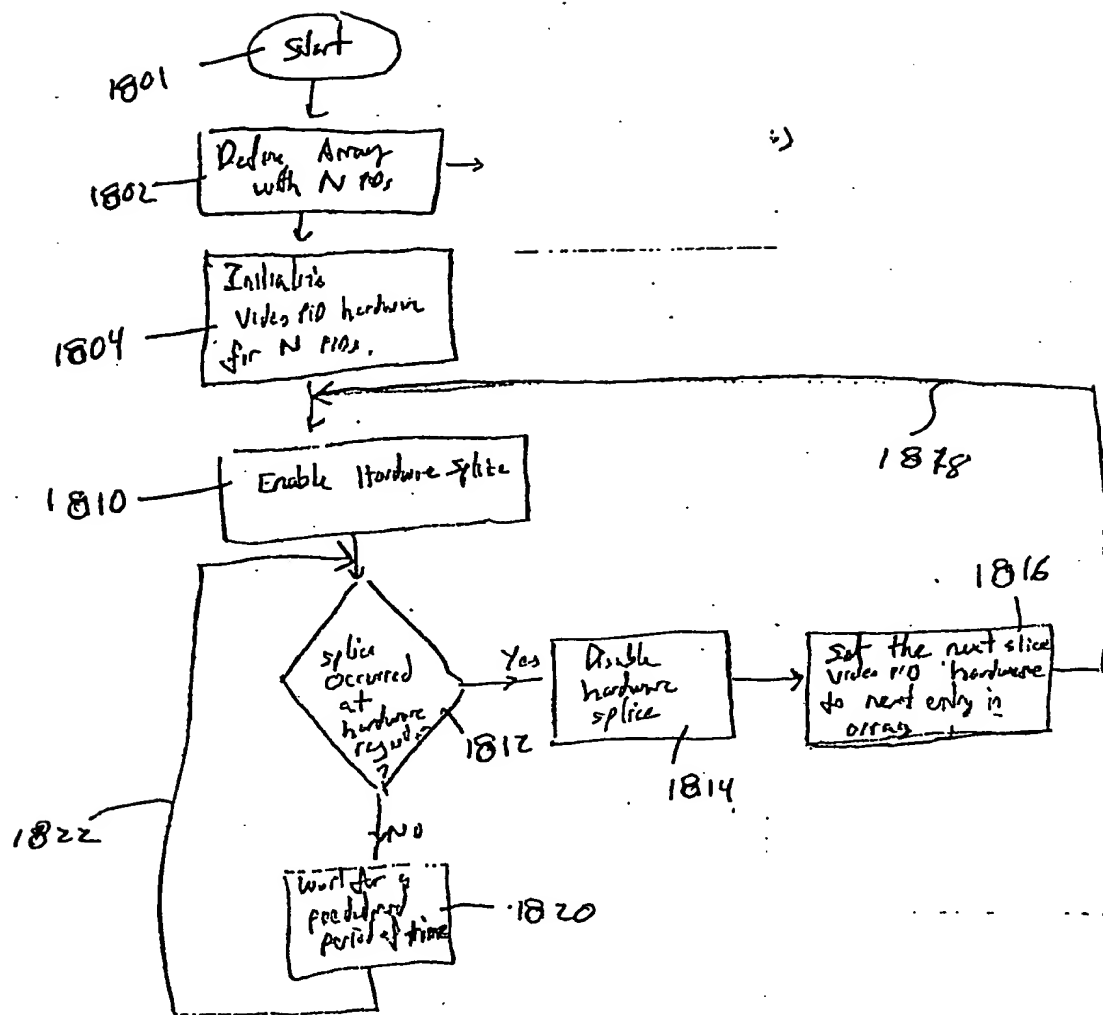


Figure 18

time = t_1

Sequence 50233420

PID1	PID2	PID3	...	PID9	PID10	PID11	PID12	PID13
------	------	------	-----	------	-------	-------	-------	-------

$g1/s1$	$g2/s1$	$g3/s1$	...	$g9/s1$	$g10/s1$	$v1/s1$	$m1/s1$	$k1/s1$
$g1/s2$	$g2/s2$	$g3/s2$	...	$g9/s2$	$g10/s2$	$v1/s2$	$m1/s2$	$k1/s2$
$g1/s3$	$g2/s3$	$g3/s3$	...	$g9/s3$	$g10/s3$	$v1/s3$	$m1/s3$	$k1/s3$
...
$g1/sN$	$g2/sN$	$g3/sN$	...	$g9/sN$	$g10/sN$	$v1/sN$	$m1/sN$	$k1/sN$

1900

Intra-coded Guide and Video

Fig. 19

time	<u>PID 11</u>	<u>PID 12</u>	<u>PID 13</u>	<u>PID 11</u>	<u>PID 12</u>	<u>PID 13</u>	<u>PID 11</u>	<u>PID 12</u>	<u>PID 13</u>	
t_2	V_2/S_1	M_2/S_1	K_2/S_1	V_2/S_2	M_2/S_2	K_2/S_2	V_2/SN	M_2/SN	K_2/SN	2002
t_3	V_3/S_1	M_3/S_1	K_3/S_1	V_3/S_2	M_3/S_2	K_3/S_2	V_3/SN	M_3/SN	K_3/SN	2003
t_4	V_4/S_1	M_4/S_1	K_4/S_1	V_4/S_2	M_4/S_2	K_4/S_2	V_4/SN	M_4/SN	K_4/SN	2004
t_{15}	V_{15}/S_1	M_{15}/S_1	K_{15}/S_1	V_{15}/S_2	M_{15}/S_2	K_{15}/S_2	$V_{15/SN}$	$M_{15/SN}$	$K_{15/SN}$	2005

Predicted Video

2000

Fig. 20

TABLE 2-2-3

time	PID11	PID12	PID13	PID11	PID12	PID13	PID11	PID12	PID13
t ₂	SK/S1	SK/S1	SK/S1	SK/S2	SK/S2	SK/S2	SK/SN	SK/SN	SK/SN
t ₃	SK/S1	SK/S1	SK/S1	SK/S2	SK/S2	SK/S2	SK/SN	SK/SN	SK/SN
t ₄	SK/S1	SK/S1	SK/S1	SK/S2	SK/S2	SK/S2	SK/SN	SK/SN	SK/SN
⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮
t ₁₅	SK/S1	SK/S1	SK/S1	SK/S2	SK/S2	SK/S2	SK/SN	SK/SN	SK/SN

SKIPPED GUIDE 2100

Fig. 21

Video and Graphics

2000 2001 2002 2003 2004 2005

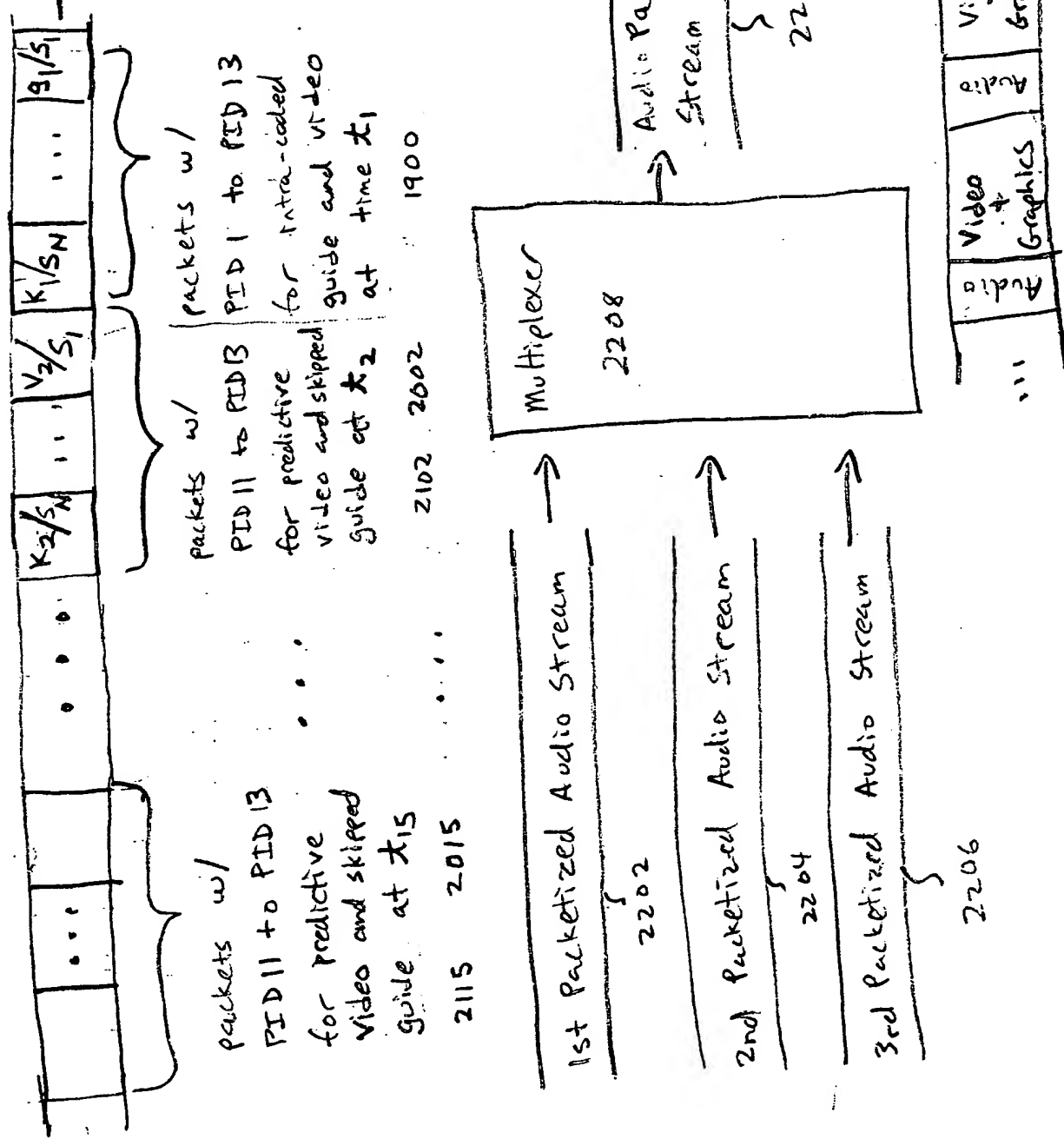


Fig. 22

O_1	O_2	O_3
O_4	O_5	O_6
O_7	O_8	O_9

objects

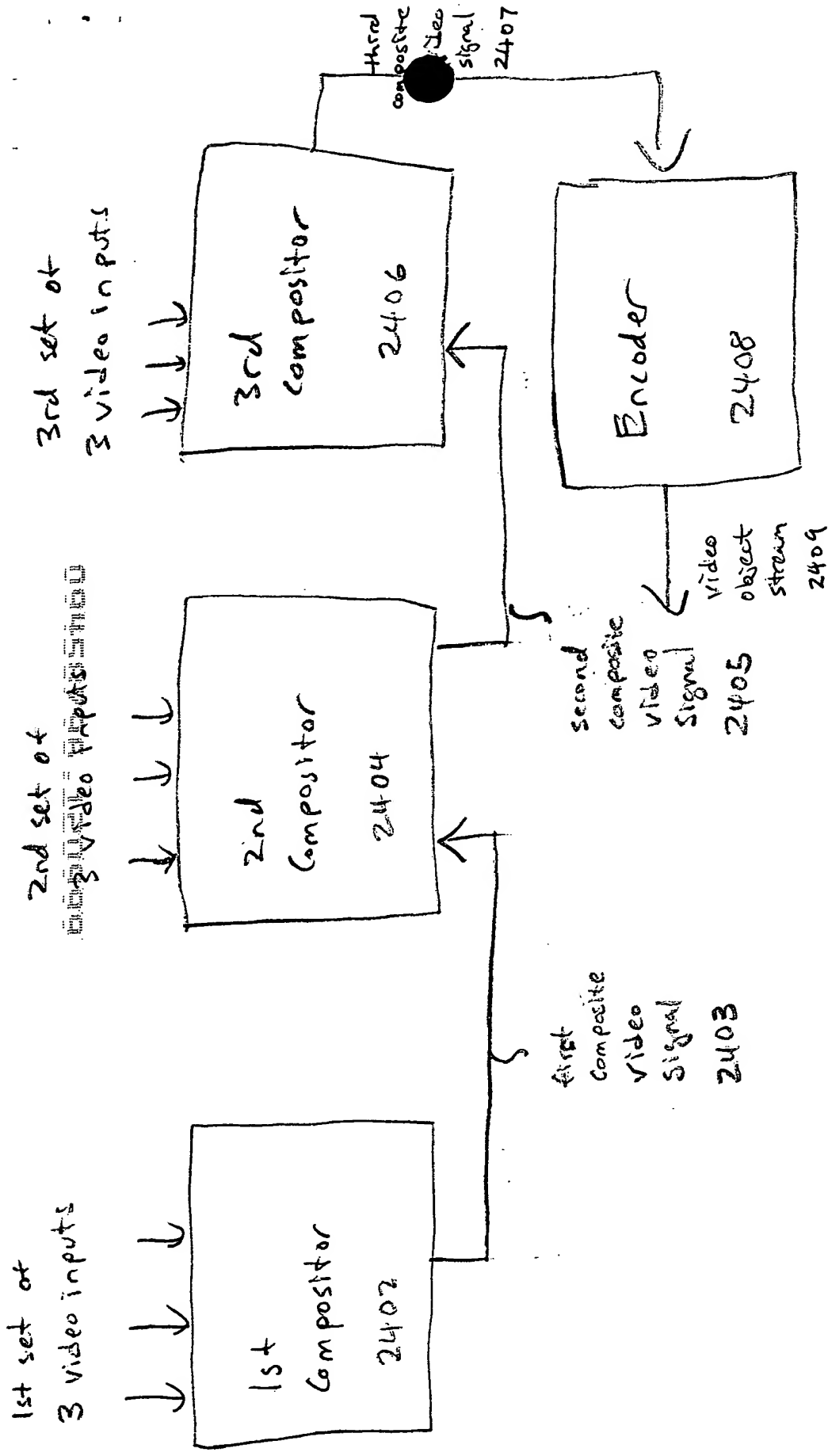
(a)

O_1/S_1	O_2/S_1	O_3/S_1
\vdots	\vdots	\vdots
O_1/S_N	O_2/S_N	O_3/S_N
O_4/S_{N+1}	O_5/S_{N+1}	O_6/S_{N+1}
\vdots	\vdots	\vdots
O_4/S_{2N}	O_5/S_{2N}	O_6/S_{2N}
O_7/S_{2N+1}	O_8/S_{2N+1}	O_9/S_{2N+1}
\vdots	\vdots	\vdots
O_7/S_{3N}	O_8/S_{3N}	O_9/S_{3N}

slice-based partitioning

(b)

Fig. 23



Cascade Compositor

Fig. 24

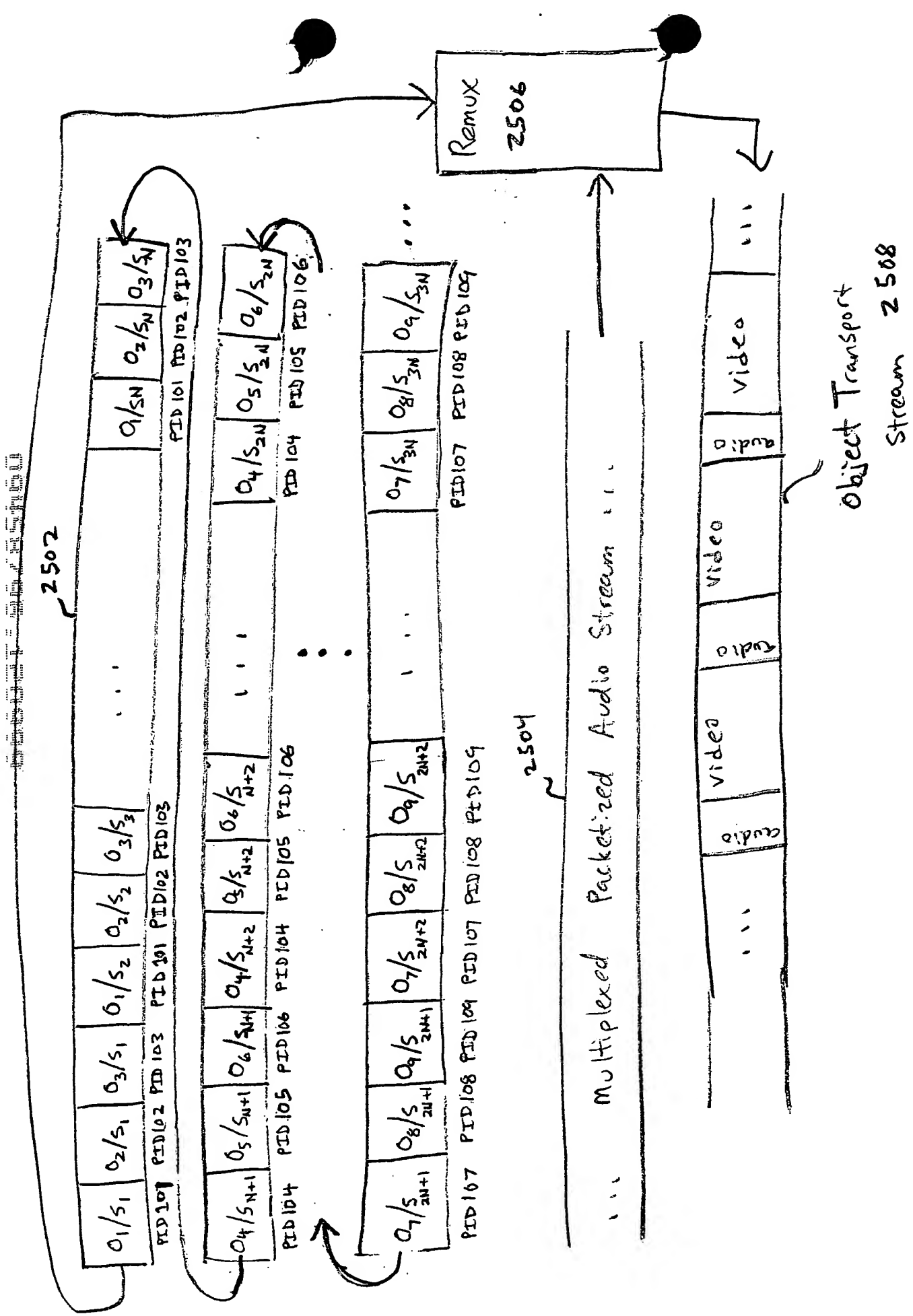


Fig. 25

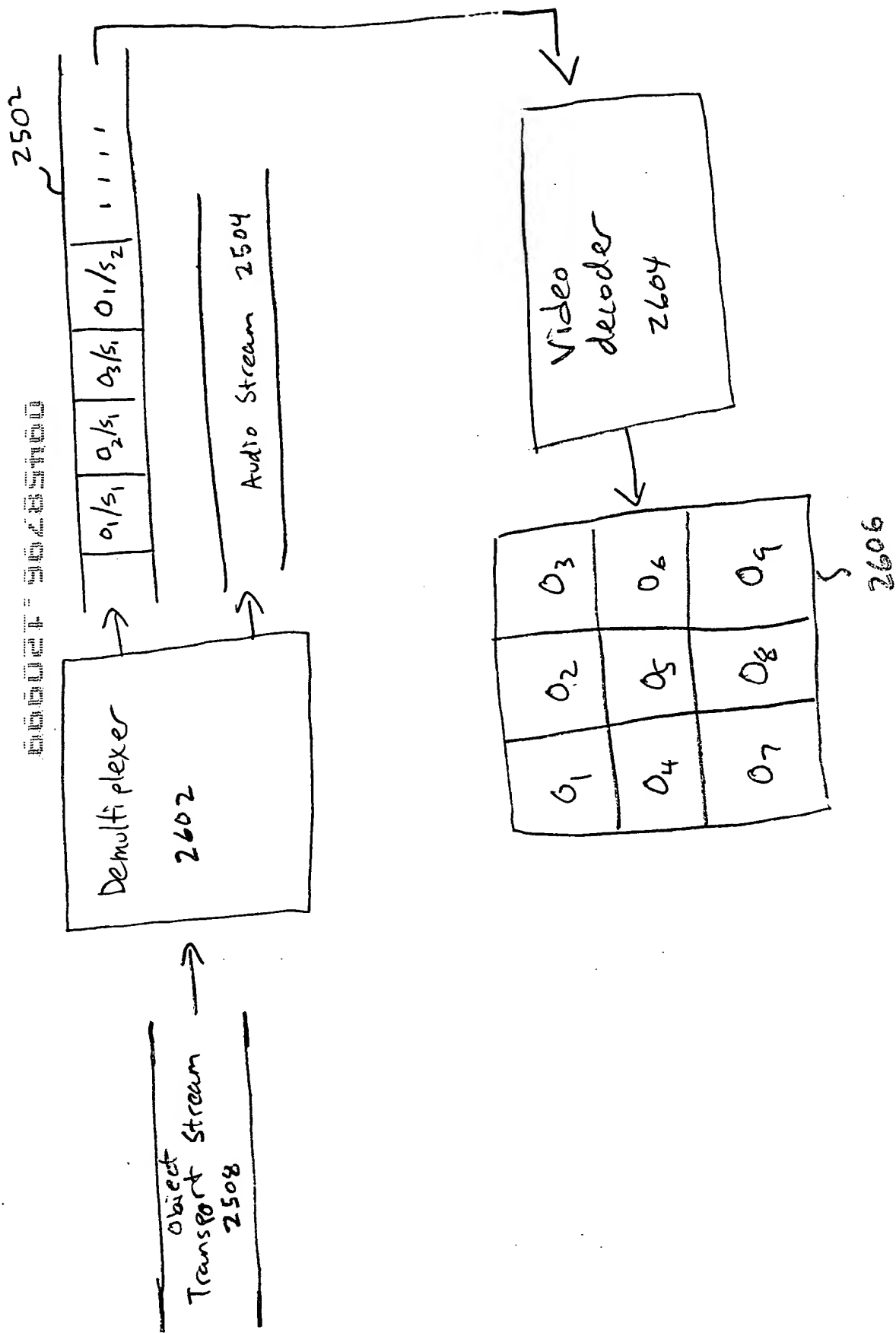


Fig. 26

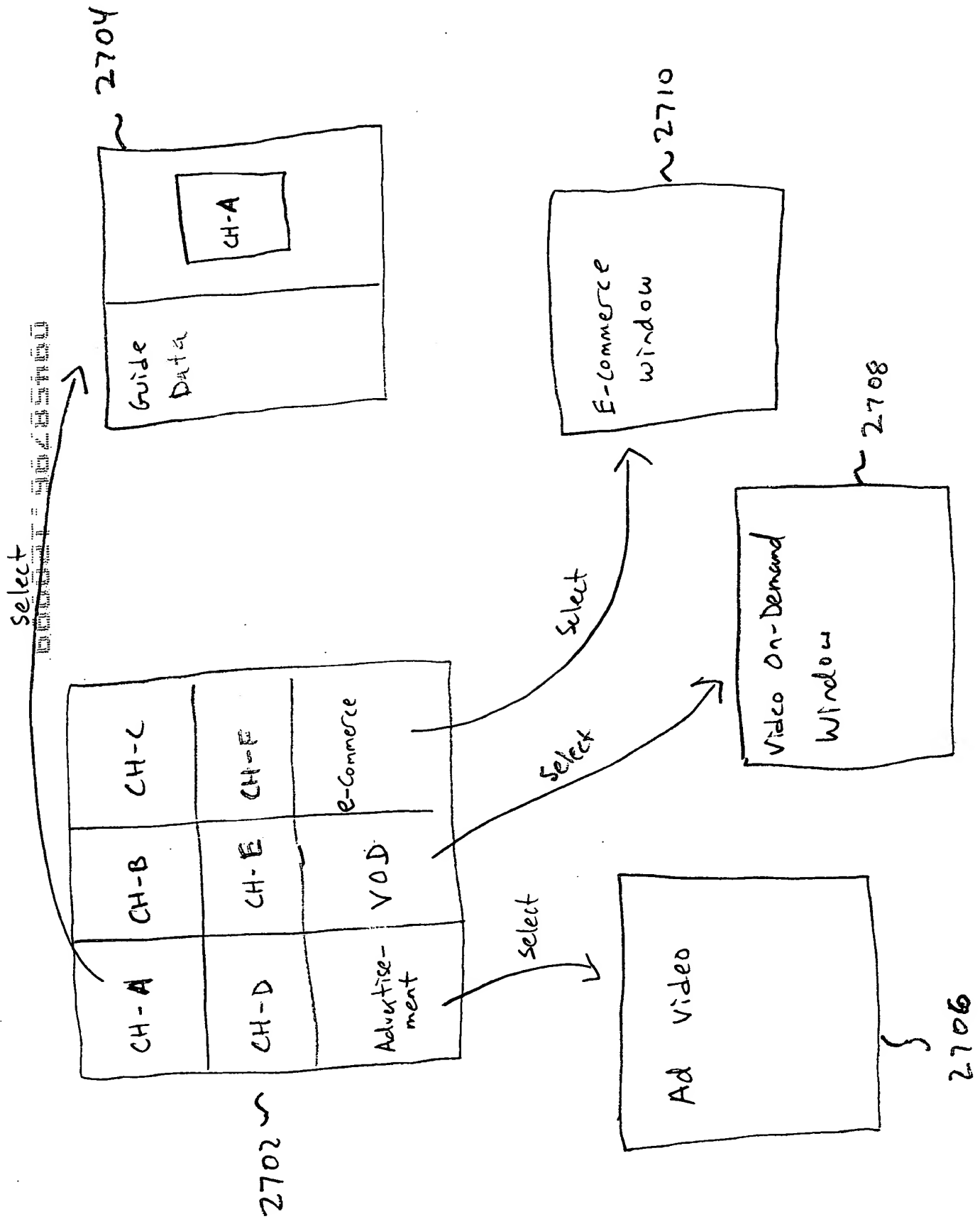


Fig. 27

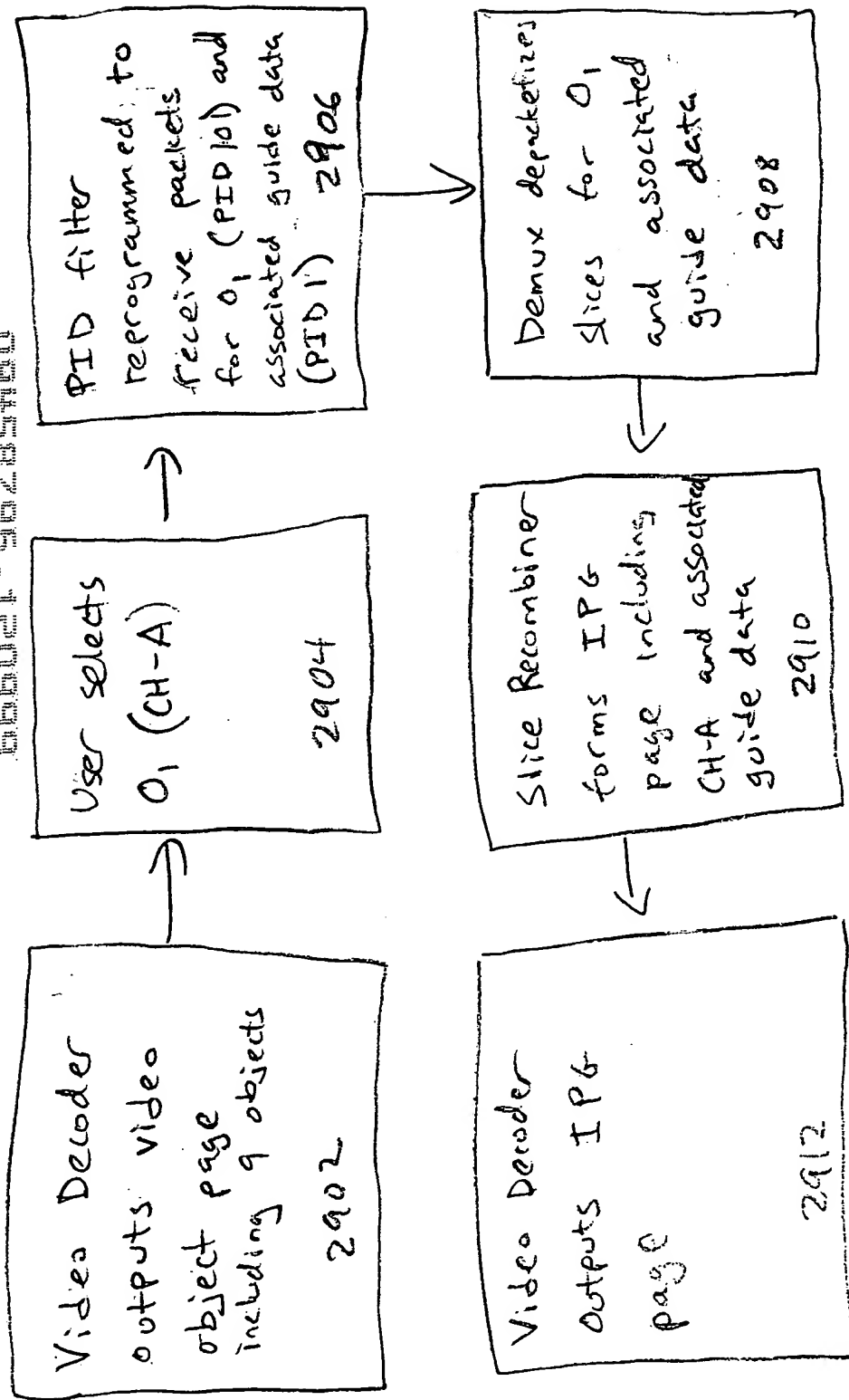


Fig. 29

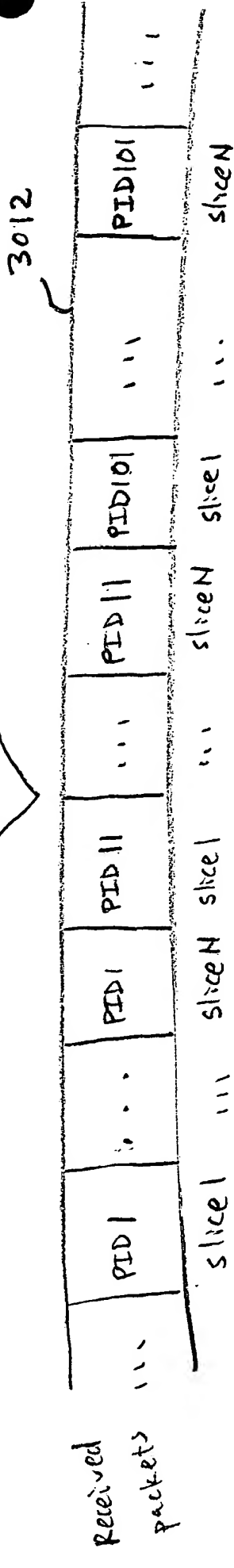
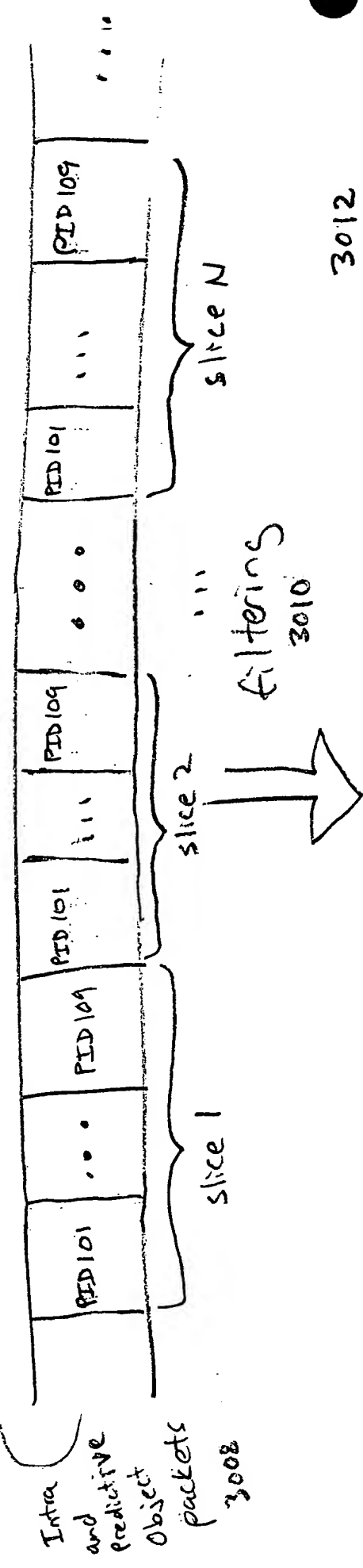
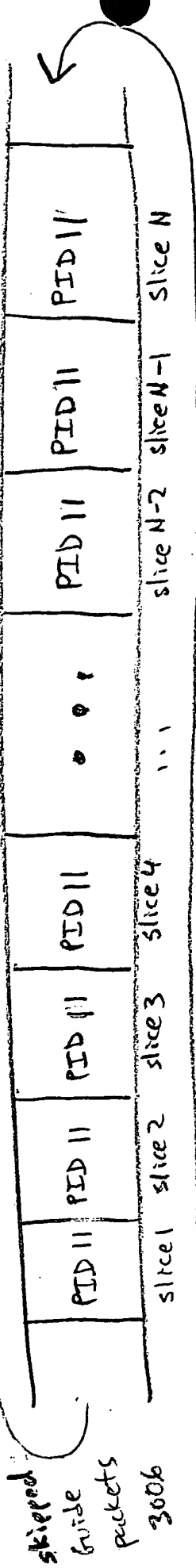
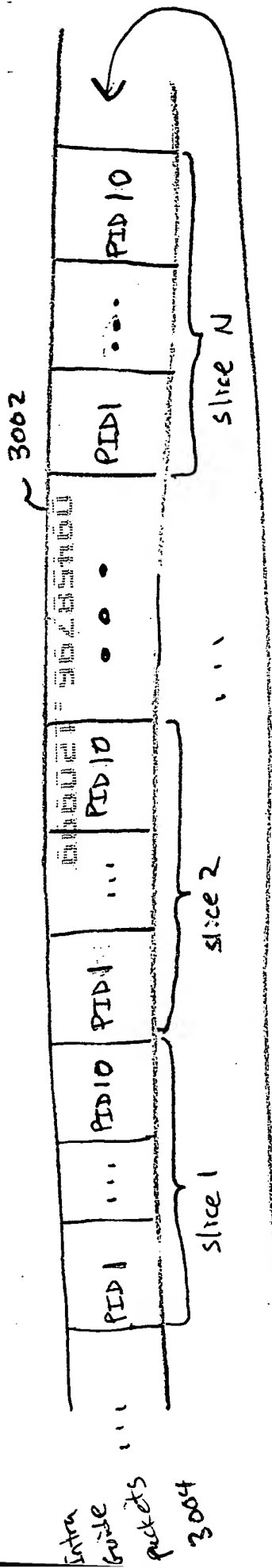
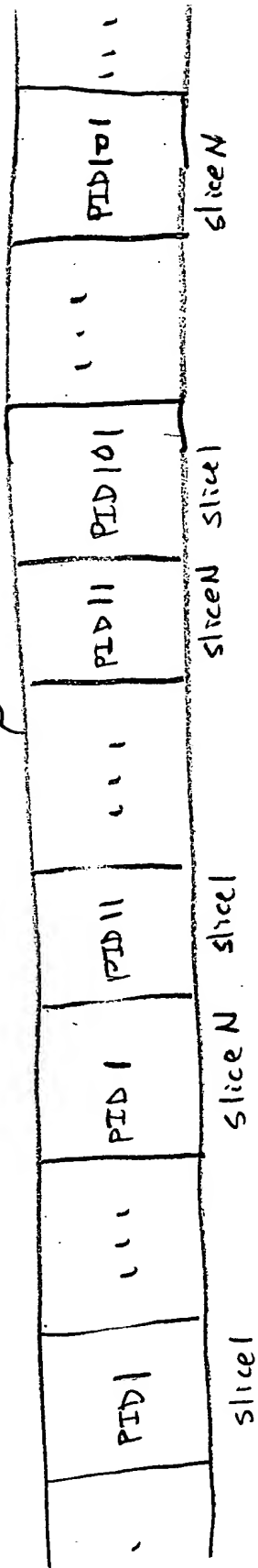


Fig. 30

Example 1 - Single Stream

Received packets



Slice
 Recombination
 3102

PID1/s1	PID101/s1
PID1/s2	PID101/s2
PID1/s3	PID101/s3
⋮	⋮
PID1/sN	PID101/sN

Intra-Coded Frame
 3104

PID11/s1	PID101/s1
PID11/s2	PID101/s2
PID11/s3	PID101/s3
⋮	⋮
PID11/sN	PID101/sN

Predictive-Coded Frames
 3106

Fig. 31

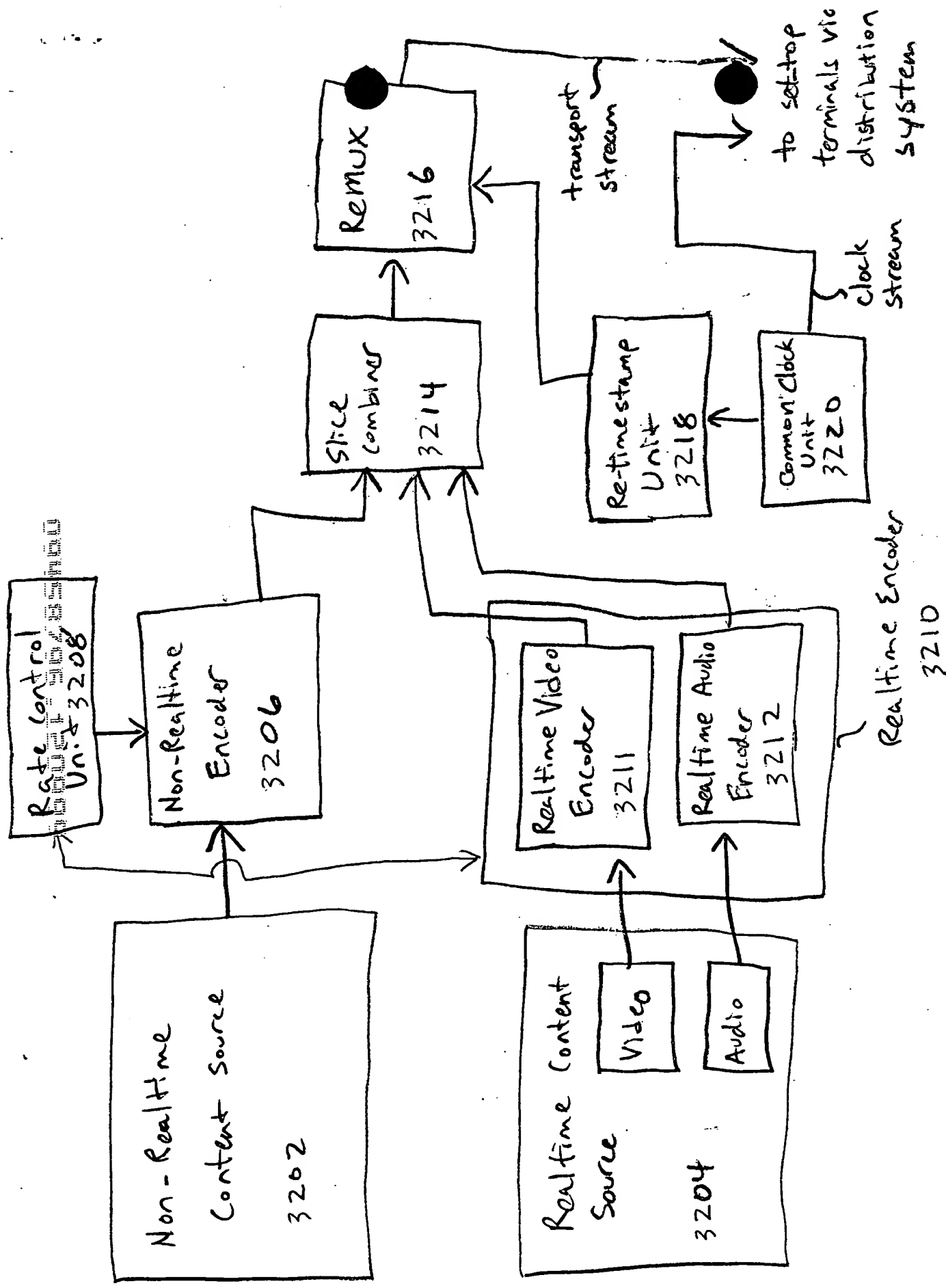


Fig. 32

Re-timestamping and Rate Control Apparatus